Nuclear Instruments and Methods in Physics Research A259 (1987) 595–602
North-Holland, Amsterdam

AUTHOR INDEX

Abe, F., K. Kondo, M. Kurisu, T. Mimashi, M. Sekiguchi and H. Takayama, Prototype flash ADC system for the CDF vertex time projection chamber A259 (1987) 466
Adamski, J., see Robinson, K.E. A259 (1987) 49
Akiba, T., M. Fukuda, M. Noma, N. Inoue, K. Tateishi, K. Imasaki, S. Miyanoto, N. Ohigashi, K. Mima, S. Nakai and C. Yamanaka, Development of an inductive voltage accumulating system for a free electron laser A259 (1987) 115
Ambrosio, M., see Patteri, P. A259 (1987) 88
Aničin, I.V. and C.T. Yap, New approach to detection limit determination in spectroscopy A259 (1987) 525
Asai, J., J.C. Bergstrom, H.S. Caplan and D.M. Skopik, Kinematics for chicane-beam electron coincidence experiments A259 (1987) 480
Asano, Y., S. Mori, M. Moriya, M. Shioden, Y. Yamagishi, M. Yoshida, Y. Ikegami, M. Kichise, I. Nakano and Y. Shimomura, Cosmic ray tests of 7.6 m drift-tube counters and the readout electronics system of the VENUS muon detector A259 (1987) 430
Asano, Y., S. Mori, M. Moriya, M. Shioden, Y. Yamagishi, Y. Ikegami and I. Nakano, Monte Carlo simulations of effects due to delta rays in aluminum drift-tube counters A259 (1987) 438

Baker, C.A., C.J. Batty and S. Sakamoto, Efficiency of Si(Li) X-ray detectors at low energies A259 (1987) 501
Barbarino, G., see Patteri, P. A259 (1987) 88
Bardin, G., G. Burgun, R. Calabrese, G. Capon, R. Carlin, P. Dalpiaz, P.F. Dalpiaz, J.P. De Brion, M. De Giorgi, J. Derré, U. Dosselli, G. Ducastaing, J. Duclos, J.L. Faure, F. Gaparini, R. Giantin, M. Huet, C. Kochowski, S. Limentani, G. Marel, E. Mazzucato, A.T. Meneguzzo, A. Mougeot, E. Pauli, F. Petrucci, G. Pitacco, M. Posocco, M. Savrié, R. Stroili, L. Tecchio, C. Voci and N. Zekri, A large solid angle magnetic detector for precision studies of e.m. processes in low-energy $\bar{p}$ interactions A259 (1987) 376
Bateman, J.E., J.F. Connolly, R. Stephenson, A.C. Flesher, C.J. Bryant, A.D. Lincoln, P.A. Tucker and S.W. Swanton, Two digital X-ray imaging systems for applications in X-ray diffraction A259 (1987) 506
Batty, C.J., see Baker, C.A. A259 (1987) 501
Bazin, C., see Billardon, M. A259 (1987) 72
Ben-Zvi, I., see Jerby, E. A259 (1987) 263
Bender, S.C., see Warren, R.W. A259 (1987) 8
Bergher, M., see Billardon, M. A259 (1987) 72
Bergstrom, J.C., see Asai, J. A259 (1987) 480
Bieger, W., see Hoenen, F. A259 (1987) 529
Billardon, M., P. Elleaume, J.M. Ortega, C. Bazin, M. Bergher, M.E. Couprie, Y. Lapierre, Y. Petroff, R. Prazeres and M. Velghe, Status of the Orsay FEL experiment A259 (1987) 72
Blanchis, P., see Chauvenet, B. A259 (1987) 550
Blau, J., see Colson, W.B. A259 (1987) 198
Bogomolov, G.D., see Kapitza, S.P. A259 (1987) 285
Bouchard, J., see Chauvenet, B. A259 (1987) 550
Bougault, R., J. Duchon, J.M. Gautier, A. Genoux-Lubain, C. Le Brun, J.F. Lecolley, F. Lefebvres, M. Louvel, P. Mosrin and R. Regimbart, "DELF", a large solid angle detection system for heavy fragments A259 (1987) 473
Bryant, C.J., see Bateman, J.E. A259 (1987) 506
Burgun, G., see Bardin, G. A259 (1987) 376
Burzynski, S., see Henneck, R. A259 (1987) 329
Buskirk, F.R., J.R. Neighbours and X.K. Maruyama, Radiation produced by the modulated electron beam of a free electron laser A259 (1987) 281

Calabrese, R., see Bardin, G. A259 (1987) 376
Caplan, H.S., see Asai, J. A259 (1987) 480
Capon, G., see Bardin, G. A259 (1987) 376
Carlin, R., see Bardin, G. A259 (1987) 376
Carlsten, B.F., see Feldman, D.W. A259 (1987) 26
Castellano, M., see Patteri, P. A259 (1987) 88
Cavallo, N., see Patteri, P. A259 (1987) 88
Cevenini, F., see Patteri, P. A259 (1987) 88

Chan, K.C.D., see Warren, R.W. . . . A259 (1987) 8
Chapman, K.R., see Sanderson, D.P. . . . A259 (1987) 324
Chauvenet, B., J. Bouchard, R. Vatin and P. Blanchis, Measurement of high-activity sources with a $4\pi\beta-\gamma$ coincidence system . . . A259 (1987) 550
Cheng, C.W., see Pidgeon, C.R. . . . A259 (1987) 31
Churchill, T.L., see Robinson, K.E. . . . A259 (1987) 49
Churchill, T.L., see Robinson, K.E. . . . A259 (1987) 62
Ciocci, F., G. Dattoli, A. De Angelis, A. Dipace, A. Doria, E. Fiorentino, G.P. Gallerano, T. Letardi, A. Marino, A. Renieri, E. Sabia, G. Schettini, A. Torre, J.E. Walsh, E. Garate, R. Layman and C. Shaughnessy, Status of the ENEA–Dartmouth far infrared Cherenkov laser experiment . . . A259 (1987) 128
Cline, D.B., D.J. Larson, F.E. Mills and J.B. Rosenzweig, Tunable two frequency free electron laser using a Pelletron as a driver for a plasma beatwave accelerator . . . A259 (1987) 275
Colson, W.B. and J. Blau, Free electron laser theory in weak optical fields . . . A259 (1987) 198
Connolly, J.F., see Bateman, J.E. . . . A259 (1987) 506
Couprie, M.E., see Billardon, M. . . . A259 (1987) 72
Couprie, M.E. and P. Elleaume, Modification of the electron bunch shape induced by the Orsay storage ring FEL . . . A259 (1987) 77

Dalpiaz, P., see Bardin, G. . . . A259 (1987) 376
Dalpiaz, P.F., see Bardin, G. . . . A259 (1987) 376
Dalton, A.W., Characteristics of the scintillation responses of small lithium glass detectors to electron excitation A259 (1987) 545
Dattoli, G., see Ciocci, F. . . . A259 (1987) 128
Dattoli, G., see Gallardo, J.C. . . . A259 (1987) 245
De Angelis, A., see Ciocci, F. . . . A259 (1987) 128
De Brion, J.P., see Bardin, G. . . . A259 (1987) 376
De Giorgi, M., see Bardin, G. . . . A259 (1987) 376
Delayen, J.R., Design of low velocity superconducting accelerating structures using quarter-wavelength resonant lines . . . A259 (1987) 341
Deloney, T.L., see Reid, M.B. . . . A259 (1987) 133
Derré, J., see Bardin, G. . . . A259 (1987) 376
Dipace, A., see Ciocci, F. . . . A259 (1987) 128
Doering, T., see Robinson, K.E. . . . A259 (1987) 49
Domogala, G. and H. Freiesleben, The ion optical properties of a travelling-wave chopper . . . A259 (1987) 365
Doria, A., see Ciocci, F. . . . A259 (1987) 128
Dosselli, U., see Bardin, G. . . . A259 (1987) 376
Ducastaing, G., see Bardin, G. . . . A259 (1987) 376
Duchon, J., see Bougault, R. . . . A259 (1987) 473
Duclos, J., see Bardin, G. . . . A259 (1987) 376

Eckhouse, S., see Jerby, E. . . . A259 (1987) 263
Edighoffer, J., see Smith, T.I. . . . A259 (1987) 1
Eggers, P., see Nolting, H.-F. . . . A259 (1987) 576
Elias, L., see Gallardo, J.C. . . . A259 (1987) 245
Elleaume, P., see Billardon, M. . . . A259 (1987) 72
Elleaume, P., see Velghe, M.F. . . . A259 (1987) 83
Elleaume, P., see Couprie, M.E. . . . A259 (1987) 77
Elliott, C.J. and M.J. Schmitt, XUV harmonic enhancement by magnetic fields . . . A259 (1987) 177

Faure, J.L., see Bardin, G. . . . A259 (1987) 376
Fawley, W.M., see Yu, S.S. . . . A259 (1987) 219
Feinstein, J., see Reid, M.B. . . . A259 (1987) 133
Feinstein, J., see Pantell, R.H. . . . A259 (1987) 143
Feinstein, J., see Ho, A.H. . . . A259 (1987) 269
Feldman, D.W., see Warren, R.W. . . . A259 (1987) 8
Feldman, D.W., see Lumpkin, A.H. . . . A259 (1987) 13
Feldman, D.W., R.W. Warren, W.E. Stein, J.S. Fraser, G. Spalek, A.H. Lumpkin, J.M. Watson, B.F. Carlsten, H. Takeda and T.-S. Wang, Energy recovery in the Los Alamos free electron laser . . . A259 (1987) 26
Feldman, R.B., see Lumpkin, A.H. . . . A259 (1987) 19
Fenelon, A., see Fryar, J. . . . A259 (1987) 557
Fiorentino, E., see Ciocci, F. . . . A259 (1987) 128
Firth, W.J., see Pidgeon, C.R. . . . A259 (1987) 31

Firth, W.J., see McNeil, B.W.J. . . . A259 (1987) 240
Fisher, A.S., see Reid, M.B. . . . A259 (1987) 133
Flesher, A.C., see Bateman, J.E. . . . A259 (1987) 506
Fontana, E., see Pantell, R.H. . . . A259 (1987) 143
Fraser, J.S., see Feldman, D.W. . . . A259 (1987) 26
Freiesleben, H., see Domogala, G. . . . A259 (1987) 365
Freund, H.P. and A.K. Ganguly, Phase variation in free electron laser amplifiers . . . A259 (1987) 235
Friedman, A., see Gover, A. . . . A259 (1987) 163
Fryar, J., K.J. McCarthy and A. Fenelon, Differential X-ray absorptiometry applied to computerised X-ray tomography . . . A259 (1987) 557
Fujita, H., see Ohigashi, N. . . . A259 (1987) 111
Fukuda, M., see Akiba, T. . . . A259 (1987) 115

Gallagher, W., see Robinson, K.E. . . . A259 (1987) 49
Gallardo, J.C., L. Elias, G. Dattoli and A. Renieri, Multimode free electron laser with long electron pulses: effects of electron energy drift . . . A259 (1987) 245
Gallerano, G.P., see Ciocci, F. . . . A259 (1987) 128
Ganguly, A.K., see Freund, H.P. . . . A259 (1987) 235
Garate, E., see Ciocci, F. . . . A259 (1987) 128
Garate, E.P., J. Walsh, C. Shaughnessy, B. Johnson and S. Moustaizis, Cherenkov free electron laser operation from 375 to 1000 μm . . . A259 (1987) 125
Gasparini, F., see Bardin, G. . . . A259 (1987) 376
Gautier, J.M., see Bougault, R. . . . A259 (1987) 473
Gellert, R.I., see Shemwell, D.M. . . . A259 (1987) 56
Genoux-Lubain, A., see Bougault, R. . . . A259 (1987) 473
Gertner, I., see Heber, O. . . . A259 (1987) 589
Giantin, R., see Bardin, G. . . . A259 (1987) 376
Gillespie, W.A., see Pidgeon, C.R. . . . A259 (1987) 31
Goldstein, J.C., see Warren, R.W. . . . A259 (1987) 8
Goldstein, J.C., see Takeda, H. . . . A259 (1987) 295
Goldstein, J.C. and B.D. McVey, Recent theoretical results for an rf-linac-driven XUV free electron laser . . . A259 (1987) 203
Goren, Y., see Jerby, E. . . . A259 (1987) 263
Gover, A., see Olshan, R.Z. . . . A259 (1987) 119
Gover, A., A. Friedman and A. Luccio, Three dimensional modelling and numerical analysis of super-radiant harmonic emission in an FEL (optical klystron) . . . A259 (1987) 163
Gover, A., see Jerby, E. . . . A259 (1987) 263
Guber, K., see Wisshak, K. . . . A259 (1987) 583
Gysin, C., see Henneck, R. . . . A259 (1987) 329

Hall, G.A., see Sanderson, D.P. . . . A259 (1987) 324
Hammans, M., see Henneck, R. . . . A259 (1987) 329
Heber, O., I. Gertner, A. Talmi and B. Rosner, A fast multiparameter multicoincidence data acquisition device using an IBM-PC microcomputer (*Letter to the Editor*) . . . A259 (1987) 589
Henkel, G., see Nolting, H.-F. . . . A259 (1987) 576
Henneck, R., C. Gysin, M. Hammans, J. Jourdan, W. Lorenzon, M.A. Pickar, I. Sick, S. Burzynski and T. Stammbach, A facility for monoenergetic polarized neutrons of 30–70 MeV . . . A259 (1987) 329
Henrikson, H.E., see Iqbal, M.Z. . . . A259 (1987) 459
Herb, S.W., Large permanent magnet quadrupoles for an electron storage ring . . . A259 (1987) 358
Hirai, M., N. Niimura and A. Ishida, Epithermal and thermal neutron beamline monitor using ^{6}Li glass scintillator . . . A259 (1987) 497
Ho, A.H., see Reid, M.B. . . . A259 (1987) 133
Ho, A.H., J. Feinstein and R.H. Pantell, High efficiency energy conversion by means of microwave acceleration within an FEL . . . A259 (1987) 269
Hoenen, F. and W. Bieger, Spherical pulse ionization chambers for determination of the ion temperature in DD fusion plasmas . . . A259 (1987) 529
Hollander, R.W., see Schotanus, P. . . . A259 (1987) 586
Huet, M., see Bardin, G. . . . A259 (1987) 376

Ikegami, Y., see Asano, Y. . . . A259 (1987) 430
Ikegami, Y., see Asano, Y. . . . A259 (1987) 438
Imasaki, K., see Ohigashi, N. . . . A259 (1987) 111

Imasaki, K., see Akiba, T. A259 (1987) 115
Inoue, N., see Akiba, T. A259 (1987) 115
Iqbal, M.Z., H.E. Henrikson, L.W. Mitchell, B.M.G. O'Callaghan, J. Thomas and H.T-k. Wong, Design and construction of a high pressure xenon time projection chamber A259 (1987) 459
Ishida, A., see Hirai, M. A259 (1987) 497

Jackson, R.H., D.E. Pershing and F. Wood, NRL ubitron amplifier cold test results A259 (1987) 99
Jaroszynski, D.A., see Pidgeon, C.R. A259 (1987) 31
Jaroszynski, D.A., G.E. Peckham, R.A. Suttie, D.M. Tratt, M.F. Kimmitt and C.R. Pidgeon, Data acquisition and optical diagnostic systems for the UK FEL A259 (1987) 38
Jerby, E., A. Gover, S. Ruschin, H. Kleinman, I. Ben-Zvi, J.S. Sokolowski, S. Eckhouse, Y. Goren and Y. Shiloh, A proposal for a tandem accelerator FEL experiment A259 (1987) 263
Johnson, B., see Garate, E.P. A259 (1987) 125
Jong, R.A. and E.T. Scharlemann, High gain free electron laser for heating and current drive in the ALCATOR-C tokamak A259 (1987) 254
Jourdan, J., see Henneck, R. A259 (1987) 329

Kapetanakos, C., see Pasour, J.A. A259 (1987) 94
Kapitza, S.P., G.D. Bogomolov, L.A. Wainshtein and V.V. Zavialov, The microtron and the free electron laser . A259 (1987) 285
Käppeler, F., see Wisshak, K. A259 (1987) 583
Karlsson, E. (*Book review*: Nuclear Chemistry, by A. Vertés and I. Kiss) A259 (1987) 591
Karlsson, E. (*Book review*: The Nuclear Age, by J. LeClercq) A259 (1987) 591
Kawai, M., see Kawamura, Y. A259 (1987) 107
Kawamura, Y., K. Toyoda and M. Kawai, Self mode-locked oscillation of a free electron laser A259 (1987) 107
Kelliher, M.G., see Pidgeon, C.R. A259 (1987) 31
Kemper, K.W., see Sanderson, D.P. A259 (1987) 324
Kennedy, R., see Robinson, K.E. A259 (1987) 49
Kichise, M., see Asano, Y. A259 (1987) 430
Kimmitt, M.F., see Pidgeon, C.R. A259 (1987) 31
Kimmitt, M.F., see Jaroszynski, D.A. A259 (1987) 38
Kitagawa, Y., see Ohigashi, N. A259 (1987) 111
Kleinman, H., see Olshan, R.Z. A259 (1987) 119
Kleinman, H., see Jerby, E. A259 (1987) 263
Kochowski, C., see Bardin, G. A259 (1987) 376
Kondo, K., see Abe, F. A259 (1987) 466
Krebs, B., see Nolting, H.-F. A259 (1987) 576
Kurisu, M., see Abe, F. A259 (1987) 466
Kuruma, S.-I., see Ohigashi, N. A259 (1987) 111

Laing, E.W., see Pidgeon, C.R. A259 (1987) 31
Land, D.V., see Pidgeon, C.R. A259 (1987) 31
Lapierre, Y., see Smith, T.I. A259 (1987) 1
Lapierre, Y., see Billardon, M. A259 (1987) 72
Lapierre, Y., see Prazeres, R. A259 (1987) 184
Larson, D.J., see Cline, D.B. A259 (1987) 275
Lavi, N. and D. Wolfman, Determination of thickness of thin layers sputtered on glass tubes by instrumental neutron activation analysis A259 (1987) 580
Layman, R., see Ciocci, F. A259 (1987) 128
Le Brun, C., see Bougault, R. A259 (1987) 473
Lecolley, J.F., see Bougault, R. A259 (1987) 473
Lefebvres, F., see Bougault, R. A259 (1987) 473
Letardi, T., see Ciocci, F. A259 (1987) 128
Levush, B., see Tang, C.M. A259 (1987) 192
Limentani, S., see Bardin, G. A259 (1987) 376
Lincoln, A.D., see Bateman, J.E. A259 (1987) 506
Lissak, B., see Olshan, R.Z. A259 (1987) 119
Lohsen, R.A., see Warren, R.W. A259 (1987) 8
Lorenzon, W., see Henneck, R. A259 (1987) 329
Louvel, M., see Bougault, R. A259 (1987) 473
Luccio, A., see Gover, A. A259 (1987) 163
Luchini, P., More on optical guiding in an FEL A259 (1987) 150

Lumpkin, A.H., see Warren, R.W. A259 (1987) 8
Lumpkin, A.H., see Feldman, D.W. A259 (1987) 26
Lumpkin, A.H. and R.B. Feldman, On-line extraction efficiency analyses for the Los Alamos free electron laser A259 (1987) 19
Lumpkin, A.H. and D.W. Feldman, Diagnostics of the Los Alamos free electron laser using streak systems A259 (1987) 13

MacKay, J.S., see Pidgeon, C.R. A259 (1987) 31
Marable, W.P., C.M. Tang and P. Sprangle, Tapered wiggler analysis of high gain free electron laser oscillators . A259 (1987) 210
Marel, G., see Bardin, G. A259 (1987) 376
Marino, A., see Ciocci, F. A259 (1987) 128
Marshall, T.C., see Yee, F.G. A259 (1987) 104
Maruyama, X.K., S. Penner, C.-M. Tang and P. Sprangle, Proposal for a free electron laser driven by the National Bureau of Standards' cw microtron A259 (1987) 259
Maruyama, X.K., see Buskirk, F.R. A259 (1987) 281
Masud, J., see Yee, F.G. A259 (1987) 104
Masullo, M.R., see Patteri, P. A259 (1987) 88
Mathew, J., see Pasour, J.A. A259 (1987) 94
Mayer, H.J., Pulse shape simulation for drift chambers with long drift paths A259 (1987) 447
Mazzucato, E., see Bardin, G. A259 (1987) 376
McCarthy, K.J., see Fryar, J. A259 (1987) 557
McNeil, B.W.J. and W.J. Firth, Gain in planar wiggler free electron lasers A259 (1987) 240
McVey, B.D., see Warren, R.W. A259 (1987) 8
McVey, B.D., see Warren, R.W. A259 (1987) 154
McVey, B.D., see Takeda, H. A259 (1987) 295
McVey, B.D., see Goldstein, J.C. A259 (1987) 203
McVey, B.D. and R.W. Warren, Bending and focusing effects in an FEL oscillator II: numerical simulations . . . A259 (1987) 158
Meneguzzo, A.T., see Bardin, G. A259 (1987) 376
Mills, F.E., see Cline, D.B. A259 (1987) 275
Mima, K., see Ohigashi, N. A259 (1987) 111
Mima, K., see Akiba, T. A259 (1987) 115
Mimashi, T., see Abe, F. A259 (1987) 466
Mitchell, L.W., see Iqbal, M.Z. A259 (1987) 459
Miyamoto, S., see Ohigashi, N. A259 (1987) 111
Miyanoto, S., see Akiba, T. A259 (1987) 115
Mori, S., see Asano, Y. A259 (1987) 430
Mori, S., see Asano, Y. A259 (1987) 438
Moriya, M., see Asano, Y. A259 (1987) 430
Moriya, M., see Asano, Y. A259 (1987) 438
Mosrin, P., see Bougault, R. A259 (1987) 473
Mougeot, A., see Bardin, G. A259 (1987) 376
Moustaizis, S., see Garate, E.P. A259 (1987) 125

Nakai, S., see Ohigashi, N. A259 (1987) 111
Nakai, S., see Akiba, T. A259 (1987) 115
Nakano, I., see Asano, Y. A259 (1987) 430
Nakano, I., see Asano, Y. A259 (1987) 438
Neighbours, J.R., see Buskirk, F.R. A259 (1987) 281
Neil, G.R., see Shih, C.-C. A259 (1987) 312
Newnam, B.E., see Warren, R.W. A259 (1987) 8
Niimura, N., see Hirai, M. A259 (1987) 497
Nolting, H.-F., W. Tremel, P. Eggers, G. Henkel and B. Krebs, Specimen preparation of air sensitive materials for X-ray absorption meaurements A259 (1987) 576
Noma, M., see Akiba, T. A259 (1987) 115

O'Callaghan, B.M.G., see Iqbal, M.Z. A259 (1987) 459
Ogata, A., Focusing of synchrotron radiation A259 (1987) 566
Ohigashi, N., K. Mima, S. Miyamoto, K. Imasaki, Y. Kitagawa, H. Fujita, S.-I. Kuruma, S. Nakai and C. Yamanaka, Free electron laser experiments with the pulse power beam at ILE, Osaka A259 (1987) 111
Ohigashi, N., see Akiba, T. A259 (1987) 115
Olshan, R.Z., S. Ruschin, A. Gover, H. Kleinman, B. Lissak and Z. Sheena, Recent measurements of electron trapping and phase area displacement of nonrelativistic electrons employing an electromagnetic wiggler A259 (1987) 119

Ortega, J.M., see Billardon, M. . . . A259 (1987) 72
Ortega, J.M., see Prazeres, R. . . . A259 (1987) 184

Pan Dajing, see Xin Xianjie . . . A259 (1987) 521
Pantell, R.H., see Reid, M.B. . . . A259 (1987) 133
Pantell, R.H., E. Fontana and J. Feinstein, Wave guiding by a wiggling FEL beam . . . A259 (1987) 143
Pantell, R.H., see Ho, A.H. . . . A259 (1987) 269
Pasour, J.A., J. Mathew and C. Kapetanakos, Recent results from the Naval Research Laboratory experimental FEL program . . . A259 (1987) 94
Patteri, P., M.A. Preger, M. Ambrosio, G. Barbarino, M. Castellano, N. Cavallo, F. Cevenini and M.R. Masullo, Optical cavity alignment and mirror damage in the LELA FEL experiment . . . A259 (1987) 88
Pauli, E., see Bardin, G. . . . A259 (1987) 376
Peckham, G.E., see Jaroszynski, D.A. . . . A259 (1987) 38
Penner, S., see Maruyama, X.K. . . . A259 (1987) 259
Pershing, D.E., see Jackson, R.H. . . . A259 (1987) 99
Petroff, Y., see Billardon, M. . . . A259 (1987) 72
Petrucci, F., see Bardin, G. . . . A259 (1987) 376
Philpott, R.J., A new look at adiabatic passage . . . A259 (1987) 317
Philpott, R.J., see Sanderson, D.P. . . . A259 (1987) 324
Pickar, M.A., see Henneck, R. . . . A259 (1987) 329
Pidgeon, C.R., D.A. Jaroszynski, D.M. Tratt, S.D. Smith, W.J. Firth, M.F. Kimmitt, C.W. Cheng, M.W. Poole, G. Saxon, R.P. Walker, J.S. MacKay, J.M. Reid, M.G. Kelliher, E.W. Laing, D.V. Land and W.A. Gillespie, The UK FEL project: status and measurement of optical gain . . . A259 (1987) 31
Pidgeon, C.R., see Jaroszynski, D.A. . . . A259 (1987) 38
Pijpelink, J., see Schotanus, P. . . . A259 (1987) 586
Pindroh, A.L., see Quimby, D.C. . . . A259 (1987) 304
Pitacco, G., see Bardin, G. . . . A259 (1987) 376
Poole, M.W., see Pidgeon, C.R. . . . A259 (1987) 31
Posocco, M., see Bardin, G. . . . A259 (1987) 376
Prazeres, R., see Billardon, M. . . . A259 (1987) 72
Prazeres, R., Y. Lapierre and J.M. Ortega, Monte Carlo simulation of the harmonic generation in an optical klystron or undulator . . . A259 (1987) 184
Preger, M.A., see Patteri, P. . . . A259 (1987) 88

Quimby, D.C., see Robinson, K.E. . . . A259 (1987) 49
Quimby, D.C., A.L. Pindroh and K.E. Robinson, The wedged-pole concept for improving the performance of permanent magnet hybrid undulators . . . A259 (1987) 304
Quimby, D.C., see Shemwell, D.M. . . . A259 (1987) 56
Quimby, D.C., see Robinson, K.E. . . . A259 (1987) 62

Regimbart, R., see Bougault, R. . . . A259 (1987) 473
Reid, J.M., see Pidgeon, C.R. . . . A259 (1987) 31
Reid, M.B., A.S. Fisher, R.H. Pantell, J. Feinstein, T.L. Deloney and A.H. Ho, Design of a gas-loaded free electron laser experiment . . . A259 (1987) 133
Renieri, A., see Ciocci, F. . . . A259 (1987) 128
Renieri, A., see Gallardo, J.C. . . . A259 (1987) 245
Riyopoulos, S., see Tang, C.M. . . . A259 (1987) 192
Riyopoulos, S. and C.M. Tang, The free electron laser sideband instability reconsidered . . . A259 (1987) 226
Robinson, B., see Robinson, K.E. . . . A259 (1987) 49
Robinson, K.E., T.L. Churchill, D.C. Quimby, D.M. Shemwell, J.M. Slater, A.S. Valla, A.A. Vetter, J. Adamski, T. Doering, W. Gallagher, R. Kennedy, B. Robinson, D. Shoffstall, E. Tyson, A. Vetter and A. Yeremian, Panorama of the visible wavelength FEL oscillator . . . A259 (1987) 49
Robinson, K.E., see Shemwell, D.M. . . . A259 (1987) 56
Robinson, K.E., D.C. Quimby, J.M. Slater, T.L. Churchill and A.S. Valla, Field certification of a high strength tapered hybrid undulator . . . A259 (1987) 62
Robinson, K.E., see Quimby, D.C. . . . A259 (1987) 304
Rohatgi, R., see Smith, T.I. . . . A259 (1987) 1
Rosenzweig, J.B., see Cline, D.B. . . . A259 (1987) 275
Rosner, B., see Heber, O. . . . A259 (1987) 589
Ross, J., see Shemwell, D.M. . . . A259 (1987) 56
Ruschin, S., see Olshan, R.Z. . . . A259 (1987) 119
Ruschin, S., see Jerby, E. . . . A259 (1987) 263

Sabia, E., see Ciocci, F. . . . A259 (1987) 128
Sakamoto, S., see Baker, C.A. . . . A259 (1987) 501
Sanderson, D.P., S.P. Van Verst, G.A. Hall, B.G. Schmidt, D.E. Trcka, K.R. Chapman, K.W. Kemper and R.J. Philpott, Method to test the adiabatic operation of a spin one vector polarized ion source . . . A259 (1987) 324
Savrié, M., see Bardin, G. . . . A259 (1987) 376
Saxon, G., see Pidgeon, C.R. . . . A259 (1987) 31
Saxon, G., A compact and economical injector for free electron lasers . . . A259 (1987) 288
Scharlemann, E.T., see Yu, S.S. . . . A259 (1987) 219
Scharlemann, E.T., see Jong, R.A. . . . A259 (1987) 254
Schettini, G., see Ciocci, F. . . . A259 (1987) 128
Schlesinger, S.P., see Yee, F.G. . . . A259 (1987) 104
Schmidt, B.G., see Sanderson, D.P. . . . A259 (1987) 324
Schmitt, M.J., see Elliott, C.J. . . . A259 (1987) 177
Schotanus, P., C.W.E. Van Eijk, R.W. Hollander and J. Pijpelink, Photoelectron production in BaF_2–TMAE detectors (*Letter to the Editor*) . . . A259 (1987) 586
Schumacher, U., Measurements of the dispersion and resolution of the general double-crystal monochromator . A259 (1987) 538
Schwettman, H.A., see Smith, T.I. . . . A259 (1987) 1
Sekiguchi, M., see Abe, F. . . . A259 (1987) 466
Sessler, A.M., see Yu, S.S. . . . A259 (1987) 219
Sharp, W.M., see Yu, S.S. . . . A259 (1987) 219
Shaughnessy, C., see Garate, E.P. . . . A259 (1987) 125
Shaughnessy, C., see Ciocci, F. . . . A259 (1987) 128
Sheena, Z., see Olshan, R.Z. . . . A259 (1987) 119
Shemwell, D.M., see Robinson, K.E. . . . A259 (1987) 49
Shemwell, D.M., K.E. Robinson, R.I. Gellert, D.C. Quimby, J. Ross, J.M. Slater, A.A. Vetter and J. Zumdieck, Optical cavities for visible free electron laser experiments . . . A259 (1987) 56
Shih, C.-C. and G.R. Neil, Phase-conjugate free electron laser resonators . . . A259 (1987) 312
Shiloh, Y., see Jerby, E. . . . A259 (1987) 263
Shimomura, Y., see Asano, Y. . . . A259 (1987) 430
Shioden, M., see Asano, Y. . . . A259 (1987) 430
Shioden, M., see Asano, Y. . . . A259 (1987) 438
Shoffstall, D., see Robinson, K.E. . . . A259 (1987) 49
Sick, I., see Henneck, R. . . . A259 (1987) 329
Skopik, D.M., see Asai, J. . . . A259 (1987) 480
Slater, J.M., see Robinson, K.E. . . . A259 (1987) 49
Slater, J.M., see Shemwell, D.M. . . . A259 (1987) 56
Slater, J.M., see Robinson, K.E. . . . A259 (1987) 62
Smith, S.D., see Pidgeon, C.R. . . . A259 (1987) 31
Smith, T.I., H.A. Schwettman, R. Rohatgi, Y. Lapierre and J. Edighoffer, Development of the SCA/FEL for use in biomedical and materials science experiments . . . A259 (1987) 1
Sokolowski, J.S., see Jerby, E. . . . A259 (1987) 263
Spalek, G., see Feldman, D.W. . . . A259 (1987) 26
Sprangle, P., A. Ting and C.M. Tang, Radiation focusing and guiding in the free electron laser . . . A259 (1987) 136
Sprangle, P., see Tang, C.M. . . . A259 (1987) 192
Sprangle, P., see Maruyama, X.K. . . . A259 (1987) 259
Sprangle, P., see Marable, W.P. . . . A259 (1987) 210
Stammbach, T., see Henneck, R. . . . A259 (1987) 329
Stein, W.E., see Warren, R.W. . . . A259 (1987) 8
Stein, W.E., see Feldman, D.W. . . . A259 (1987) 26
Stephenson, R., see Bateman, J.E. . . . A259 (1987) 506
Sternbach, E.J., see Yu, S.S. . . . A259 (1987) 219
Stroili, R., see Bardin, G. . . . A259 (1987) 376
Suttie, R.A., see Jaroszynski, D.A. . . . A259 (1987) 38
Swanton, S.W., see Bateman, J.E. . . . A259 (1987) 506

Takayama, H., see Abe, F. . . . A259 (1987) 466
Takeda, H., see Feldman, D.W. . . . A259 (1987) 26
Takeda, H., B.D. McVey and J.C. Goldstein, Theoretical study of a high-extraction efficiency undulator for a free electron laser oscillator . . . A259 (1987) 295
Talmi, A., see Heber, O. . . . A259 (1987) 589
Tang, C.M., see Sprangle, P. . . . A259 (1987) 136

Tang, C.M., see Marable, W.P. A259 (1987) 210
Tang, C.M., see Riyopoulos, S. A259 (1987) 226
Tang, C.M., S. Riyopoulos, P. Sprangle and B. Levush, Operation of the induced resonance electron cyclotron maser at higher harmonics A259 (1987) 192
Tang, C.-M., see Maruyama, X.K. A259 (1987) 259
Tateishi, K., see Akiba, T. A259 (1987) 115
Tecchio, L., see Bardin, G. A259 (1987) 376
Thomas, J., see Iqbal, M.Z. A259 (1987) 459
Ting, A., see Sprangle, P. A259 (1987) 136
Torre, A., see Ciocci, F. A259 (1987) 128
Toyoda, K., see Kawamura, Y. A259 (1987) 107
Tratt, D.M., see Pidgeon, C.R. A259 (1987) 31
Tratt, D.M., see Jaroszynski, D.A. A259 (1987) 38
Trcka, D.E., see Sanderson, D.P. A259 (1987) 324
Tremel, W., see Nolting, H.-F. A259 (1987) 576
Tucker, P.A., see Bateman, J.E. A259 (1987) 506
Tyson, E., see Robinson, K.E. A259 (1987) 49

Valla, A.S., see Robinson, K.E. A259 (1987) 49
Valla, A.S., see Robinson, K.E. A259 (1987) 62
Van Eijk, C.W.E., see Schotanus, P. A259 (1987) 586
Van Verst, S.P., see Sanderson, D.P. A259 (1987) 324
Vatin, R., see Chauvenet, B. A259 (1987) 550
Velghe, M., see Billardon, M. A259 (1987) 72
Velghe, M.F. and P. Elleaume, FEL optics coating test device A259 (1987) 83
Vetter, A., see Robinson, K.E. A259 (1987) 49
Vetter, A.A., see Robinson, K.E. A259 (1987) 49
Vetter, A.A., see Shemwell, D.M. A259 (1987) 56
Voci, C., see Bardin, G. A259 (1987) 376

Wainshtein, L.A., see Kapitza, S.P. A259 (1987) 285
Walker, R.P., see Pidgeon, C.R. A259 (1987) 31
Walsh, J., see Garate, E.P. A259 (1987) 125
Walsh, J.E., see Ciocci, F. A259 (1987) 128
Wang, T.-S., see Feldman, D.W. A259 (1987) 26
Warren, R.W., D.W. Feldman, B.E. Newnam, S.C. Bender, W.E. Stein, A.H. Lumpkin, R.A. Lohsen, J.C. Goldstein, B.D. McVey and K.C.D. Chan, Recent results from the Los Alamos free electron laser A259 (1987) 8
Warren, R.W. and B.D. McVey, Bending and focusing effects in an FEL oscillator I: simple models A259 (1987) 154
Warren, R.W., see McVey, B.D. A259 (1987) 158
Warren, R.W., see Feldman, D.W. A259 (1987) 26
Watson, J.M., see Feldman, D.W. A259 (1987) 26
Wigmans, R., On the energy resolution of uranium and other hadron calorimeters A259 (1987) 389
Wisshak, K., K. Guber and F. Käppeler, Gamma-ray spectroscopy with a cooled barium fluoride crystal (*Letter to the Editor*) A259 (1987) 583
Wolfman, D., see Lavi, N. A259 (1987) 580
Wong, H.T-k., see Iqbal, M.Z. A259 (1987) 459
Wood, F., see Jackson, R.H. A259 (1987) 99

Xin Xianjie and Pan Dajing, A new sliding scale principle and the spectroscopic ADC based on this principle . . A259 (1987) 521

Yamagishi, Y., see Asano, Y. A259 (1987) 430
Yamagishi, Y., see Asano, Y. A259 (1987) 438
Yamanaka, C., see Ohigashi, N. A259 (1987) 111
Yamanaka, C., see Akiba, T. A259 (1987) 115
Yap, C.T., see Aničin, I.V. A259 (1987) 525
Yee, F.G., J. Masud, T.C. Marshall and S.P. Schlesinger, Power and sideband studies of a Raman FEL A259 (1987) 104
Yeremian, A., see Robinson, K.E. A259 (1987) 49
Yoshida, M., see Asano, Y. A259 (1987) 430
Yu, S.S., W.M. Sharp, W.M. Fawley, E.T. Scharlemann, A.M. Sessler and E.J. Sternbach, Waveguide suppression of the free electron laser sideband instability A259 (1987) 219

Zavialov, V.V., see Kapitza, S.P. A259 (1987) 285
Zekri, N., see Bardin, G. A259 (1987) 376
Zumdieck, J., see Shemwell, D.M. A259 (1987) 56

Nuclear Instruments and Methods in Physics Research A259 (1987) 603–606
North-Holland, Amsterdam

SUBJECT INDEX

Accelerators, Beam Handling and Targets

A new look at adiabatic passage, Philpott, R.J. A259 (1987) 317
Method to test the adiabatic operation of a spin one vector polarized ion source, Sanderson, D.P., S.P. Van Verst, G.A. Hall, B.G. Schmidt, D.E. Trcka, K.R. Chapman, K.W. Kemper and R.J. Philpott A259 (1987) 324
A facility for monoenergetic polarized neutrons of 30–70 MeV, Henneck, R., C. Gysin, M. Hammans, J. Jourdan, W. Lorenzon, M.A. Pickar, I. Sick, S. Burzynski and T. Stammbach A259 (1987) 329
Design of low velocity superconducting accelerating structures using quarter-wavelength resonant lines, Delayen, J.R. A259 (1987) 341
Large permanent magnet quadrupoles for an electron storage ring, Herb, S.W. A259 (1987) 358
The ion optical properties of a travelling-wave chopper, Domogala, G. and H. Freiesleben A259 (1987) 365

Instruments and Methods for High Energy Physics

A large solid angle magnetic detector for precision studies of e.m. processes in low-energy $\bar{p}$ interactions, Bardin, G., G. Burgun, R. Calabrese, G. Capon, R. Carlin, P. Dalpiaz, P.F. Dalpiaz, J.P. De Brion, M. De Giorgi, J. Derré, U. Dosselli, G. Ducastaing, J. Duclos, J.L. Faure, F. Gasparini, R. Giantin, M. Huet, C. Kochowski, S. Limentani, G. Marel, E. Mazzucato, A.T. Meneguzzo, A. Mougeot, E. Pauli, F. Petrucci, G. Pitacco, M. Posocco, M. Savrié, R. Stroili, L. Tecchio, C. Voci and N. Zekri A259 (1987) 376
On the energy resolution of uranium and other hadron calorimeters, Wigmans, R. A259 (1987) 389
Cosmic ray tests of 7.6 m drift-tube counters and the readout electronics system of the VENUS muon detector, Asano, Y., S. Mori, M. Moriya, M. Shioden, Y. Yamagishi, M. Yoshida, Y. Ikegami, M. Kichise, I. Nakano and Y. Shimomura A259 (1987) 430
Monte Carlo simulations of effects due to delta rays in aluminum drift-tube counters, Asano, Y., S. Mori, M. Moriya, M. Shioden, Y. Yamagishi, Y. Ikegami and I. Nakano A259 (1987) 438
Pulse shape simulation for drift chambers with long drift paths, Mayer, H.J. A259 (1987) 447
Design and construction of a high pressure xenon time projection chamber, Iqbal, M.Z., H.E. Henrikson, L.W. Mitchell, B.M.G. O'Callaghan, J. Thomas and H.T-k. Wong A259 (1987) 459
Prototype flash ADC system for the CDF vertex time projection chamber, Abe, F., K. Kondo, M. Kurisu, T. Mimashi, M. Sekiguchi and H. Takayama A259 (1987) 466

Instruments and Methods for Nuclear Spectroscopy

"DELF", a large solid angle detection system for heavy fragments, Bougault, R., J. Duchon, J.M. Gautier, A. Genoux-Lubain, C. Le Brun, J.F. Lecolley, F. Lefebvres, M. Louvel, P. Mosrin and R. Regimbart A259 (1987) 473
Kinematics for chicane-beam electron coincidence experiments, Asai, J., J.C. Bergstrom, H.S. Caplan and D.M. Skopik A259 (1987) 480
Epithermal and thermal neutron beamline monitor using ^{6}Li glass scintillator, Hirai, M., N. Niimura and A. Ishida A259 (1987) 497
Efficiency of Si(Li) X-ray detectors at low energies, Baker, C.A., C.J. Batty and S. Sakamoto A259 (1987) 501
Gamma-ray spectroscopy with a cooled barium fluoride crystal (*Letter to the Editor*), Wisshak, K., K. Guber and F. Käppeler A259 (1987) 583
Photoelectron production in BaF_2–TMAE detectors (*Letter to the Editor*), Schotanus, P., C.W.E. Van Eijk, R.W. Hollander and J. Pijpelink A259 (1987) 586

Computer Automated Measurement and Control

Two digital X-ray imaging systems for applications in X-ray diffraction, Bateman, J.E., J.F. Connolly, R. Stephenson, A.C. Flesher, C.J. Bryant, A.D. Lincoln, P.A. Tucker and S.W. Swanton A259 (1987) 506
A fast multiparameter multicoincidence data acquisition device using an IBM-PC microcomputer (*Letter to the Editor*), Heber, O., I. Gertner, A. Talmi and B. Rosner A259 (1987) 589

Nuclear Electronics

A new sliding scale principle and the spectroscopic ADC based on this principle, Xin Xianjie and Pan Dajing . . A259 (1987) 521

Numerical and Data Analysis

New approach to detection limit determination in spectroscopy, Aničin, I.V. and C.T. Yap A259 (1987) 525

Fusion

Spherical pulse ionization chambers for determination of the ion temperature in DD fusion plasmas, Hoenen, F. and W. Bieger A259 (1987) 529
Measurements of the dispersion and resolution of the general double-crystal monochromator, Schumacher, U. . A259 (1987) 538
Characteristics of the scintillation responses of small lithium glass detectors to electron excitation, Dalton, A.W. A259 (1987) 545

Dosimetry, Space Radiation and Medical Applications

Measurement of high-activity sources with a $4\pi\beta-\gamma$ coincidence system, Chauvenet, B., J. Bouchard, R. Vatin and P. Blanchis A259 (1987) 550
Differential X-ray absorptiometry applied to computerised X-ray tomography, Fryar, J., K.J. McCarthy and A. Fenelon A259 (1987) 557

Synchrotron Radiation Research

Proceedings of the Eighth International Free Electron Lasers Conference (Glasgow, Scotland, September 1–5, 1986)

Section I. Low gain experiments

Development of the SCA/FEL for use in biomedical and materials science experiments, Smith, T.I., H.A. Schwettman, R. Rohatgi, Y. Lapierre and J. Edighoffer A259 (1987) 1
Recent results from the Los Alamos free electron laser, Warren, R.W., D.W. Feldman, B.E. Newnam, S.C. Bender, W.E. Stein, A.H. Lumpkin, R.A. Lohsen, J.C. Goldstein, B.D. McVey and K.C.D. Chan A259 (1987) 8
Diagnostics of the Los Alamos free electron laser using streak systems, Lumpkin, A.H. and D.W. Feldman A259 (1987) 13
On-line extraction efficiency analyses for the Los Alamos free electron laser, Lumpkin, A.H. and R.B. Feldman A259 (1987) 19
Energy recovery in the Los Alamos free electron laser, Feldman, D.W., R.W. Warren, W.E. Stein, J.S. Fraser, G. Spalek, A.H. Lumpkin, J.M. Watson, B.F. Carlsten, H. Takeda and T.-S. Wang A259 (1987) 26
The UK FEL project: status and measurement of optical gain, Pidgeon, C.R., D.A. Jaroszynski, D.M. Tratt, S.D. Smith, W.J. Firth, M.F. Kimmitt, C.W. Cheng, M.W. Poole, G. Saxon, R.P. Walker, J.S. MacKay, J.M. Reid, M.G. Kelliher, E.W. Laing, D.V. Land and W.A. Gillespie A259 (1987) 31
Data acquisition and optical diagnostic systems for the UK FEL, Jaroszynski, D.A., G.E. Peckham, R.A. Suttie, D.M. Tratt, M.F. Kimmitt and C.R. Pidgeon A259 (1987) 38
Panorama of the visible wavelength FEL oscillator, Robinson, K.E., T.L. Churchill, D.C. Quimby, D.M. Shemwell, J.M. Slater, A.S. Valla, A.A. Vetter, J. Adamski, T. Doering, W. Gallagher, R. Kennedy, B. Robinson, D. Shoffstall, E. Tyson, A. Vetter and A. Yeremian A259 (1987) 49
Optical cavities for visible free electron laser experiments, Shemwell, D.M., K.E. Robinson, R.I. Gellert, D.C. Quimby, J. Ross, J.M. Slater, A.A. Vetter and J. Zumdieck A259 (1987) 56
Field certification of a high strength tapered hybrid undulator, Robinson, K.E., D.C. Quimby, J.M. Slater, T.L. Churchill and A.S. Valla A259 (1987) 62
Status of the Orsay FEL experiment, Billardon, M., P. Elleaume, J.M. Ortega, C. Bazin, M. Bergher, M.E. Couprie, Y. Lapierre, Y. Petroff, R. Prazeres and M. Velghe A259 (1987) 72
Modification of the electron bunch shape induced by the Orsay storage ring FEL, Couprie, M.E. and P. Elleaume A259 (1987) 77
FEL optics coating test device, Velghe, M.F. and P. Elleaume A259 (1987) 83
Optical cavity alignment and mirror damage in the LELA FEL experiment, Patteri, P., M.A. Preger, M. Ambrosio, G. Barbarino, M. Castellano, N. Cavallo, F. Cevenini and M.R. Masullo A259 (1987) 88

Section II. High gain and collective regime experiments

Recent results from the Naval Research Laboratory experimental FEL program, Pasour, J.A., J. Mathew and C. Kapetanakos A259 (1987) 94

NRL ubitron amplifier cold test results, Jackson, R.H., D.E. Pershing and F. Wood A259 (1987) 99
Power and sideband studies of a Raman FEL, Yee, F.G., J. Masud, T.C. Marshall and S.P. Schlesinger A259 (1987) 104
Self mode-locked oscillation of a free electron laser, Kawamura, Y., K. Toyoda and M. Kawai A259 (1987) 107
Free electron laser experiments with the pulse power beam at ILE, Osaka, Ohigashi, N., K. Mima, S. Miyamoto, K. Imasaki, Y. Kitagawa, H. Fujita, S.-I. Kuruma, S. Nakai and C. Yamanaka A259 (1987) 111
Development of an inductive voltage accumulating system for a free electron laser, Akiba, T., M. Fukuda, M. Noma, N. Inoue, K. Tateishi, K. Imasaki, S. Miyanoto, N. Ohigashi, K. Mima, S. Nakai and C. Yamanaka . A259 (1987) 115

Section III. Unconventional experiments

Recent measurements of electron trapping and phase area displacement of nonrelativistic electrons employing an electromagnetic wiggler, Olshan, R.Z., S. Ruschin, A. Gover, H. Kleinman, B. Lissak and Z. Sheena A259 (1987) 119
Cherenkov free electron laser operation from 375 to 1000 μm, Garate, E.P., J. Walsh, C. Shaughnessy, B. Johnson and S. Moustaizis A259 (1987) 125
Status of the ENEA–Dartmouth far infrared Cherenkov laser experiment, Ciocci, F., G. Dattoli, A. De Angelis, A. Dipace, A. Doria, E. Fiorentino, G.P. Gallerano, T. Letardi, A. Marino, A. Renieri, E. Sabia, G. Schettini, A. Torre, J.E. Walsh, E. Garate, R. Layman and C. Shaughnessy A259 (1987) 128
Design of a gas-loaded free electron laser experiment, Reid, M.B., A.S. Fisher, R.H. Pantell, J. Feinstein, T.L. Deloney and A.H. Ho A259 (1987) 133

Section IV. Beam guiding theory

Radiation focusing and guiding in the free electron laser, Sprangle, P., A. Ting and C.M. Tang A259 (1987) 136
Wave guiding by a wiggling FEL beam, Pantell, R.H., E. Fontana and J. Feinstein A259 (1987) 143
More on optical guiding in an FEL, Luchini, P. A259 (1987) 150
Bending and focusing effects in an FEL oscillator I: simple models, Warren, R.W. and B.D. McVey A259 (1987) 154
Bending and focusing effects in an FEL oscillator II: numerical simulations, McVey, B.D. and R.W. Warren . . . A259 (1987) 158

Section V. Harmonic emission theory

Three dimensional modelling and numerical analysis of super-radiant harmonic emission in an FEL (optical klystron), Gover, A., A. Friedman and A. Luccio A259 (1987) 163
XUV harmonic enhancement by magnetic fields, Elliott, C.J. and M.J. Schmitt A259 (1987) 177
Monte Carlo simulation of the harmonic generation in an optical klystron or undulator, Prazeres, R., Y. Lapierre and J.M. Ortega A259 (1987) 184
Operation of the induced resonance electron cyclotron maser at higher harmonics, Tang, C.M., S. Riyopoulos, P. Sprangle and B. Levush A259 (1987) 192

Section VI. Theoretical topics

Free electron laser theory in weak optical fields, Colson, W.B. and J. Blau A259 (1987) 198
Recent theoretical results for an rf-linac-driven XUV free electron laser, Goldstein, J.C. and B.D. McVey A259 (1987) 203
Tapered wiggler analysis of high gain free electron laser oscillators, Marable, W.P., C.M. Tang and P. Sprangle . A259 (1987) 210
Waveguide suppression of the free electron laser sideband instability, Yu, S.S., W.M. Sharp, W.M. Fawley, E.T. Scharlemann, A.M. Sessler and E.J. Sternbach A259 (1987) 219
The free electron laser sideband instability reconsidered, Riyopoulos, S. and C.M. Tang A259 (1987) 226
Phase variation in free electron laser amplifiers, Freund, H.P. and A.K. Ganguly A259 (1987) 235
Gain in planar wiggler free electron lasers, McNeil, B.W.J. and W.J. Firth A259 (1987) 240
Multimode free electron laser with long electron pulses: effects of electron energy drift, Gallardo, J.C., L. Elias, G. Dattoli and A. Renieri A259 (1987) 245

Section VII. New proposals

High gain free electron laser for heating and current drive in the ALCATOR-C tokamak, Jong, R.A. and E.T. Scharlemann A259 (1987) 254
Proposal for a free electron laser driven by the National Bureau of Standards' cw microtron, Maruyama, X.K., S. Penner, C.-M. Tang and P. Sprangle A259 (1987) 259
A proposal for a tandem accelerator FEL experiment, Jerby, E., A. Gover, S. Ruschin, H. Kleinman, I. Ben-Zvi, J.S. Sokolowski, S. Eckhouse, Y. Goren and Y. Shiloh A259 (1987) 263

Section VIII. System performance studies

High efficiency energy conversion by means of microwave acceleration within an FEL, Ho, A.H., J. Feinstein and R.H. Pantell A259 (1987) 269
Tunable two frequency free electron laser using a Pelletron as a driver for a plasma beatwave accelerator, Cline, D.B., D.J. Larson, F.E. Mills and J.B. Rosenzweig A259 (1987) 275

Radiation produced by the modulated electron beam of a free electron laser, Buskirk, F.R., J.R. Neighbours and X.K. Maruyama A259 (1987) 281
The microtron and the free electron laser, Kapitza, S.P., G.D. Bogomolov, L.A. Wainshtein and V.V. Zavialov . A259 (1987) 285
A compact and economical injector for free electron lasers, Saxon, G. A259 (1987) 288
Theoretical study of a high-extraction efficiency undulator for a free electron laser oscillator, Takeda, H., B.D. McVey and J.C. Goldstein A259 (1987) 295
The wedged-pole concept for improving the performance of permanent magnet hybrid undulators, Quimby, D.C., A.L. Pindroh and K.E. Robinson A259 (1987) 304
Phase-conjugate free electron laser resonators, Shih, C.-C. and G.R. Neil A259 (1987) 312

Focusing of synchrotron radiation, Ogata, A. A259 (1987) 566
Specimen preparation of air sensitive materials for X-ray absorption meaurements, Nolting, H.-F., W. Tremel, P. Eggers, G. Henkel and B. Krebs A259 (1987) 576

Special Applications

Determination of thickness of thin layers sputtered on glass tubes by instrumental neutron activation analysis, Lavi, N. and D. Wolfman A259 (1987) 580

Letters to the Editor

Gamma-ray spectroscopy with a cooled barium fluoride crystal, Wisshak, K., K. Guber and F. Käppeler A259 (1987) 583
Photoelectron production in BaF_2–TMAE detectors, Schotanus, P., C.W.E. Van Eijk, R.W. Hollander and J. Pijpelink A259 (1987) 586
A fast multiparameter multicoincidence data acquisition device using an IBM-PC microcomputer, Heber, O., I. Gertner, A. Talmi and B. Rosner A259 (1987) 589

Book Reviews

Nuclear Chemistry, by A. Vertés and I. Kiss (Reviewer: E. Karlsson) A259 (1987) 591
The Nuclear Age, by J. LeClercq (Reviewer: E. Karlsson) A259 (1987)